

In the Claims:

1. (Currently Amended) A method of fabricating ~~microstructures~~an array of microlenses comprising:

~~impinging~~scanning a radiation beam at varying amplitude through a substrate that is transparent thereto into a ~~radiation sensitive~~negative photoresist layer on the substrate to image the ~~microstructures~~array of microlenses in the ~~radiation sensitive~~negative photoresist layer.

2. (Canceled)

3. (Currently Amended) A method according to Claim [[2]]1 wherein the negative photoresist layer is thicker than the ~~microstructures~~array of microlenses and wherein ~~impinging~~scanning comprises ~~impinging~~scanning a radiation beam at varying amplitude through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image a buried ~~microstructures~~array of microlenses in the negative photoresist layer, adjacent the substrate.

4. (Currently Amended) A method according to Claim [[2]]1 wherein at least some of the ~~microstructures~~microlenses include a base and a top that is narrower than the base and wherein ~~impinging~~scanning comprises ~~impinging~~scanning a radiation beam at varying amplitude through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image ~~microstructures~~the array of microlenses in the negative photoresist layer with the bases adjacent the substrate and the tops remote from the substrate.

5. (Currently Amended) A method according to Claim [[2]]1 wherein the negative photoresist layer is of variable thickness thereacross, wherein a minimum thickness of the negative photoresist layer is thicker than the ~~microstructures~~microlenses and wherein ~~impinging~~scanning comprises ~~impinging~~scanning a radiation beam at varying amplitude through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image buried

~~microstructures~~microlenses beneath the negative photoresist layer, adjacent the substrate, that are independent of the variable thickness of the negative photoresist layer.

6. (Currently Amended) A method according to Claim ~~[[2]]~~1 wherein the negative photoresist layer includes impurities thereon, remote from the substrate, wherein the negative photoresist layer is thicker than the ~~microstructures~~microlenses and wherein ~~impinging~~scanning comprises ~~impinging~~scanning a radiation beam at varying amplitude through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image buried ~~microstructures~~microlenses in the negative photoresist layer, adjacent the substrate, that are not distorted by the impurities.

7. (Original) A method according to Claim 1 wherein the substrate is a flexible substrate.

8. (Currently Amended) A method according to Claim 1 wherein the ~~radiation sensitive~~negative photoresist layer is on a cylindrical platform such that the substrate is on the ~~radiation sensitive~~negative photoresist layer remote from the cylindrical platform, and wherein ~~impinging~~scanning comprises:

rotating the cylindrical platform about an axis thereof while simultaneously axially rastering the radiation beam at varying amplitude through the substrate that is on the cylindrical platform across at least a portion of the ~~radiation sensitive~~negative photoresist layer to image the ~~microstructures~~array of microlenses in the ~~radiation sensitive~~negative photoresist layer.

9. (Original) A method according to Claim 8 further comprising simultaneously translating the cylindrical platform and/or radiation beam axially relative to one another.

10. (Currently Amended) A method according to Claim 9 further comprising simultaneously continuously varying the amplitude of the radiation beam.

11. (Original) A method according to Claim 1 wherein the substrate is at least about one square foot in area.

12. (Currently Amended) A method according to Claim 1 wherein ~~impinging~~scanning is performed continuously on the substrate for at least about 1 hour.

13. (Currently Amended) A method according to Claim 1 wherein ~~impinging~~scanning is performed continuously on the substrate for at least about 1 hour to fabricate at least about one million ~~microstructures~~ microlenses.

14. (Canceled)

15. (Currently Amended) A method according to Claim 1 further comprising:
developing the microstructures that are imaged in the ~~radiation~~
~~sensitive~~negative photoresist layer to provide a ~~microstructure~~microlens array master.

16. (Original) A method according to Claim 1 wherein the substrate is cylindrical, ellipsoidal or polygonal in shape.

17. (Currently Amended) A method according to Claim 1 further comprising translating the substrate and/or radiation beam relative to one another while ~~impinging~~scanning the radiation beam.

18. (Currently Amended) A method according to Claim 15 further comprising:

forming a plurality of second generation stampers directly from the master;
and
forming a plurality of third generation ~~microstructure~~microlens array end products directly from a stamper.

19.-20. (Canceled)

21. (Currently Amended) A method of fabricating ~~microstructures~~an array of microlenses comprising:

~~impinging~~scanning a radiation beam at varying amplitude into a negative photoresist layer to image the ~~microstructures~~array of microlenses in the negative photoresist layer, such that portions of the negative photoresist layer that are exposed to the radiation beam remain after development.

22. (Currently Amended) A method according to Claim 21 wherein the negative photoresist layer is thicker than the ~~microstructures~~array of microlenses and wherein ~~impinging~~scanning comprises ~~impinging~~ scanning a radiation beam at varying amplitude into a negative photoresist layer to image a buried ~~microstructures~~array of microlenses in the negative photoresist layer.

23. (Currently Amended) A method according to Claim 21 wherein the negative photoresist layer is of variable thickness thereacross, wherein a minimum thickness of the negative photoresist layer is thicker than the ~~microstructures~~microlenses and wherein ~~impinging~~scanning comprises ~~impinging~~scanning a radiation beam at varying amplitude into the negative photoresist layer to image buried ~~microstructures~~microlenses beneath the negative photoresist layer that are independent of the variable thickness of the negative photoresist layer.

24. (Currently Amended) A method according to Claim 21 wherein the negative photoresist layer includes impurities thereon, wherein the negative

photoresist layer is thicker than the ~~microstructures~~microlenses and wherein ~~impinging~~scanning comprises ~~impinging~~scanning a radiation beam at varying amplitude into the negative photoresist layer on the substrate to image buried ~~microstructures~~microlenses in the negative photoresist layer that are not distorted by the impurities.

25. (Currently Amended) A method according to Claim 21 wherein the negative photoresist layer is on a cylindrical platform and wherein ~~impinging~~scanning comprises:

rotating the cylindrical platform about an axis thereof while simultaneously axially rastering the radiation beam at varying amplitude across at least a portion of the negative photoresist layer that is on the cylindrical platform to image the ~~microstructures~~array of microlenses in the negative photoresist layer.

26. (Original) A method according to Claim 25 further comprising simultaneously translating the cylindrical platform and/or radiation beam axially relative to one another.

27. (Currently Amended) A method according to Claim 26 further comprising simultaneously continuously varying the amplitude of the radiation beam.

28. (Original) A method according to Claim 21 wherein the negative photoresist layer is at least about one square foot in area.

29. (Currently Amended) A method according to Claim 21 wherein ~~impinging~~scanning is performed continuously on the negative photoresist layer for at least about 1 hour.

30. (Currently Amended) A method according to Claim 21 wherein ~~impinging~~scanning is performed continuously on the negative photoresist layer for at least about 1 hour to fabricate at least about one million ~~microstructures~~ microlenses.

31. (Canceled)

32. (Original) A method according to Claim 21 wherein the negative photoresist layer is cylindrical, ellipsoidal or polygonal in shape.

33. (Currently Amended) A method according to Claim 21 further comprising translating the substrate and/or radiation beam relative to one another, while ~~impinging~~scanning the radiation beam.

34. (Currently Amended) A method according to Claim ~~[[31]]~~21 further comprising:

developing the ~~microstructures~~microlenses that are imaged in the negative photoresist layer to provide a ~~microstructure~~microlens array master.

35. (Currently Amended) A method according to Claim 34 further comprising:

forming a plurality of second generation stampers directly from the master;
and

forming a plurality of third generation ~~microstructure~~microlens array end products directly from a stamper.

36.-37. (Canceled)

38. (Currently Amended) A method of fabricating ~~microstructures~~an array of microlenses comprising:

~~impinging~~scanning a laser beam at varying amplitude through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image the ~~microstructures~~array of microlenses in the negative photoresist layer, wherein at least some of the ~~microstructures~~microlenses include a base adjacent the substrate and a top that is narrower than the base, remote from the substrate.

39. (Original) A method according to Claim 38 wherein the substrate is a flexible substrate.

40. (Currently Amended) A method according to Claim 38 wherein the negative photoresist layer is on a cylindrical platform such that the substrate is on the negative photoresist layer remote from the cylindrical platform, and wherein ~~impinging~~scanning comprises:

rotating the cylindrical platform about an axis thereof while simultaneously axially rastering the laser beam at variable amplitude through the substrate across at least a portion of the negative photoresist layer that is on the cylindrical platform to image the ~~microstructures~~array of microlenses in the negative photoresist layer.

41. (Original) A method according to Claim 40 further comprising simultaneously translating the cylindrical platform and/or laser beam axially relative to one another.

42. (Currently Amended) A method according to Claim 41 further comprising simultaneously continuously varying the amplitude of the laser beam.

43. (Canceled)

44. (Currently Amended) A method according to Claim 38 further comprising:

developing the ~~microstructures~~microlenses that are imaged in the photoresist layer to provide a ~~microstructure~~microlens array master.

45. (Currently Amended) A method according to Claim 44 further comprising:

forming a plurality of second generation stampers directly from the master;
and

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forming a plurality of third generation ~~microstructure~~microlens array end
products directly from a stamper.

46.-107. (Canceled)